

Claims

1. A data storage circuit characterized by provided with a comparison section for reading out existing data stored in a storage element to compare said existing data and new data with each other prior to writing of said new data to said storage element, and configuring so that, in said comparison section, in a case where said existing data and said new data are identical with each other, the writing to said storage element is not performed, and in a case where said existing data and said new data are not identical with each other, said new data is written to said storage element.

2. The data storage circuit as described in Claim 1, characterized by provided with a control signal generating section for generating a readout control signal for performing readout control of said existing data and a write control signal for performing write control of said new data, and by configuring so that said existing data and said new data are compared with each other in said comparison section in accordance with a control signal from said control signal generating section.

25 3. A data writing method in a data storage circuit, characterized by:

performing a readout process of existing data stored in a storage element prior to performing a write process of new data to said storage element to compare said existing data and said new data with each other, so as not to perform the write process to said storage

element, in a case where said existing data and said new data are identical with each other, and so as to perform the write process of said new data to said storage element in a case where said existing data and said new 5 data are not identical with each other.

4. The data writing method as described in Claim 3, characterized by generating a readout control signal and a write control signal in accordance with a write signal 10 input to said data storage circuit; reading out said existing data in accordance with said readout control signal; and comparing said existing data with said new data in accordance with said write control signal.

15 5. A data storage device characterized by provided with a comparison section for reading out existing data stored in a storage element to compare said existing data and new data with each other prior to writing of said new data to said storage element, and configuring so that, in 20 said comparison section, in a case where said existing data and said new data are identical with each other, the writing to said storage element is not performed, and in a case where said existing data and said new data are not identical with each other, the writing of said new data 25 to said storage element is performed.

6. The data storage device as described in Claim 5, characterized by provided with a control signal generating section for generating a readout control signal for performing readout control of said existing data and a write control signal for performing write 30

control of said new data, and by configuring so that said existing data and said new data are compared with each other in said comparison section in accordance with a control signal from said control signal generating

5 section.

7. The data storage device as described in Claim 6, characterized in that:

the comparison section is provided with a new data
10 retention section for temporarily retaining the new data; an existing data retention section for temporarily retaining the existing data; and a write enable signal generating section for comparing the new data retained in the new data retention section and the exiting data
15 retained in the existing data retention section with each other to control an output of the write enable signal,

the new data is temporarily retained in the new data retention section while the existing data is temporarily retained in the exiting data retention
20 section in accordance with the readout control signal output from the control signal generating section, and

the new data retained in the new data retention section and the existing data retained in the existing data retention section are compared with each other in
25 accordance with the write control signal output from the control signal generating section.